## Year 3, Autumn Term 1

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| Weeks | Strand and progression focus  | KPI’s | Key Vocabulary  | Core skill  |
|  | **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra**Addition and subtraction**Weeks 1 and 2 focus on revising the understanding and use of place value and number facts in mental addition and subtraction. | Use multiple of 5 and 10 bonds to 100 to solve additions and subtractions; add and subtract 1-digit numbers to and from 2-digit numbers | Number bondsNumber factsMultipleDoublingEven and odd1-digit number2-digit number System Addition Subtraction | Identify and represent 1 and 2 digit numbersCount up and down in 2s, 5s and 10sIdentify mathematical symbolsAdd and subtract by combining and separating groups |
|  | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra**Addition and subtraction**Weeks 1 and 2 focus on revising the understanding and use of place value and number facts in mental addition and subtraction. | Compare and order 2- and 3- digit numbers; count on and back in 10s and 1s; add and subtract 2-digit numbers; solve problems using place value | Multiple Number bondsNumber factsMatchingMultiple of 5Multiple of 10MethodHundreds, tens and onesPatternsSystem | Identify and represent 1 and 2 digit numbersCount up and down in 2s, 5s and 10sIdentify and interpret key vocabulary linked to problem solving |
|  | **MMD** Mental multiplication and division; **PRA** Problem solving, reasoning and algebra**Multiplication and division**Week 3 focuses on key multiplication and division facts and on doubling and halving. | Know multiplication and division facts for the 5, 10, 2, 4 and 3 times-tables; doubling and halvingTo use written methods for multiplication and division  | Division factMultiplication factMultipleNumber sentenceEven and oddDouble and half Teens number | Make double by combiningHalf amounts by splittingCount on and back in 2,3,4,5,10- using concrete and pictorial methods |

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|  4 | **PRA** Problem solving, reasoning and algebra; **MEA** Measurement; **GPS** Geometry: properties of shapes; **STA** Statistics**Time; 3D shapes**Week 4 focuses on telling the time with increasing accuracy, and identifying, describing and sorting 3D shapes. | Know and understand the calendar, including days, weeks, months, years; tell the time to the nearest 5 minutes on analogue and digital clocks; know the properties of 3D shapes | CalendarDate Day Fortnight Leap yearMonthWeekYearAnalogueDigitalHalf pastQuarter past and toO’clockEdgeFaceVenn diagramVerticesVertexSurface | Identify 3D shapes and give their propertiesRecall key facts about days, months, weeks, yearsBe read an analogue and digital clock |
|  **5** | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra**Place value; difference**Week 5 focuses on placing 2- and 3-digit numbers on a line and using an empty number line to find differences. | Comparing, ordering and understanding place value of 2- and 3-digit numbers; subtracting from 2-digit numbers; using prediction to estimate calculations | Halfway Hundreds More thanLess thanRoundingCalculateDifference2-digit number3-digit number4-digit number | Estimate calculationsIdentify and understand the values of 2 and 3 digit numbersDraw and label a number-line |

##  Year 3, Autumn Term 2

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| Week | Strand and progression focus  | KPI’s | Key Vocabulary | Core skills  |
| 6  | **MMD** Mental multiplication and division; **FRP** Fractions, ratio and proportion; **PRA** Problem solving, reasoning and algebra**Multiplication and division; fractions**Week 6 focuses on doubling and halving, and understanding a half and other unit fractions. | Doubling and halving numbers up to 100 using partitioning; understanding fractions and fractions of numbers | DoubleMultiplyingPartitionEqualFractionEighth HalfQuarterSixththird | Partition numbers in different waysKnow that a fraction is part of a wholeDouble by combining and half by splitting |
| 7 | . **MEA** Measurement; **PRA** Problem solving, reasoning and algebra; **MAS** Mental addition and subtraction**Place value in addition and subtraction**Week 7 focuses on understanding place value, including in money, and on using partitioning in adding and subtracting. | Use money to add and subtract and record using the correct notation and place value; add and subtract 2-digit numbers using partitioning; add three 2-digit numbers by partitioning and recombining. | FewestPencePoundsNumber bondsPartitioningTens and ones | Identify values of coins and notesPartition 2 and 3 digit numbersUse concrete, pictorial and abstract resources |
| 8 | **MEA** Measurement; **GPS** Geometry: properties of shapes**Length; capacity**Week 8 focuses on the SI units and measurement of length and capacity. | Choose an appropriate instrument to measure a length and use a ruler to estimate, measure and draw to the nearest centimetre; know 1 litre = 1000 ml; estimate and measure capacity in millilitres | CentimetreHeightLengthMeasure MeasurementMetre Metre ruleMillimetreRulerTape measureCapacityEstimate | Know to start measuring at 0Know how to use measuring equipment correctlyEstimate and give sensible predictions |
| 9 | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra**Place value; difference**Week 9 focuses on using number lines to compare and round numbers and to find differences. | Place 2- and 3-digit numbers on a number line; round 3-digit numbers to nearest 100; use counting up to do mental subtractions with answers between 10 and 20, 10 and 30, and either side of 100 | Landmark numberMultiples of 10Multiples of 100Number lineRounding DifferenceNearest | Draw and label a number line.Count in order to 100. |
| 10 | **MMD** Mental multiplication and division; **PRA** Problem solving, reasoning and algebra; **MAS** Mental addition and subtraction**Revision**Week 10 provides revision of key calculation strategies and their use in word problems. | Revise times-tables learned and derive division facts; perform division with remainders; choose a mental strategy to solve additions and subtractions; solve word problems | ArrayDivideDivision factMultiplication factMultiplyRemainderMultipleCalculationAddition Subtraction | Memorise times tables and division facts.Count in multiples.Identify and interpret key vocabulary linked to problem solving. |

## Year 3, Spring Term 1

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| Week | Strand and progression focus | KPI’s | Key Vocabulary | Core skills  |
| 11 | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra**Place value**Week 11 focuses on embedding a thorough understanding of place value and properties of numbers. | Rehearse place value in 3-digit numbers, order them on a number line and find a number in between; compare number sentences; solve additions and subtractions using place value; multiply and divide by 10 (whole number answers); count in steps of 10, 50 and 100. | Number lineDigitPlace holder MultiplyDivide ZeroSequencePattern | Draw and label a number line.Count in order to and above 100.Use place value to multiply and divide by 10. |
| 12 | **MAS** Mental addition and subtraction; **MMD** Mental multiplication and division; **STA** Statistics; **PRA** Problem solving, reasoning and algebra**Addition; times tables**Week 12 focuses on using partitioning in addition; and on the 2, 3, 4, 5, 8 and 10 times tables. | Add pairs of 2-digit numbers using partitioning (crossing 10s, 100 or both) and then extend to add two 3-digit numbers (not crossing 1000); recognise and sort multiples of 2, 3, 4, 5, and 10; double the 4 times-table to find the 8 times-table; derive division facts for the 8 times-table; multiply and divide by 4 by doubling or halving twice | Partition TotalHundreds, tens and onesDouble Half MultipleVenn DiagramComparePatternRule  | Partition 2 and 3 digit numbersRecall all known times table factsUse doubling and halving of known facts |
| 13 | **FRP** Fractions, ratio and proportion; **PRA** Problem solving, reasoning and algebra**Fractions**Week 13 focuses on fractions as numbers, finding equivalent fractions, placing fractions on a line, and on fractions as operators, finding fractions of amounts. | Identify 1/2s, 1/3s, 1/4,s 1/6s, and 1/8s; realise how many of each make a whole; find equivalent fractions; place fractions on a 0 to 1 line; find fractions of amounts | DenominatorNumeratorTenthsUnit fractionsNon-unit fractionsEquivalent fractionsTwo quartersTwo halvesThirdSixthEighth | Know a fraction is part of a whole.Use a fraction wall to find equivalent fractions.Use resources to find fractions of amounts. |
| 14 | **GPS** Geometry: properties of shapes; **GPD** Geometry: position and direction; **MEA** Measurement**Angles; 2D shapes**Week 14 focuses on angles, including right angles, measurement of turn, and the ° symbol; and on properties of 2D shapes and finding perimeters. | Recognise right angles and know they are 90°; understand angles are measured in degrees; recognise ° as the symbol for the measurement of degrees; name and list simple properties of 2D shapes; begin to understand and use the term perimeter to mean the length/distance around the edge (border) of a 2D shape; begin to calculate using a ruler; know a right angle is a quarter turn; know 360° is a full turn; begin to understand angles and identify size of angles in relation to 90° | AngleRight angleArc ProtractorTurnPerimeter LengthEdge Quadrilateral  | Know how to use a protractorKnow what an angle is and how to measure itUse the term perimeter and recognise how to calculate itRecognise different angles |
| 15 | **NPV** Number and place value; **MAS** Mental addition and subtraction**Addition and subtraction**Weeks 15, 16 and 17 focus on the way a secure understanding of place value underpins rounding, mental addition and | Place 3-digit numbers on empty 100 number lines; begin to place 3-digit numbers on 0-1000 landmarked and empty number lines; round 3-digit numbers to the nearest ten and to the nearest hundred; use counting up as a strategy to perform mental subtraction (Frog); subtract pounds and pence from five pounds; use counting up (Frog) as a strategy to perform mental subtraction of amounts of money; subtract pounds and pence from ten pounds | Half wayQuarterThree quartersCounting on Counting backDifferencePoundsPrice Change  | Draw a number line and label it.Count to 1000Recognise currency, notes and coins.Link place value to money |

## Year 3, Spring Term 2

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| Week  | Strand and progression focus | KPIs | Key Vocabulary | Core skills  |
| 16 | **NPV** Number and place value; **PRA** Problem solving, reasoning and algebra; **WAS** Written addition and subtraction**Addition and subtraction**Weeks 15, 16 and 17 focus on the way a secure understanding of place value underpins rounding, mental addition and subtraction, and column methods of addition. | Understand place-value in 3-digit numbers; separate 3-digit numbers into hundreds, tens, and ones; add two 3-digit numbers using vertical written addition (expanded); add 2- and 3- digit numbers using vertical written addition (expanded) | HundredsCalculateIntegerProductPartitionHundreds, tens and onesRuleColumn addition | Partition 3 digit numbersAdd using the expanded written methods |
| 17 | **MAS** Mental addition and subtraction; **WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and algebra**Addition and subtraction**Weeks 15, 16 and 17 focus on the way a secure understanding of place value underpins rounding, mental addition and subtraction, and column methods of addition. | Add two 2-digit numbers mentally; add 2-digit to 3-digit numbers mentally using place value and rounding; add two 3-digit numbers using expanded written method (answers under 1000); begin to move tens and hundreds moving towards formal written addition; add two 3-digit numbers using expanded column addition; investigate patterns in numbers when adding them; choose to solve addition using a mental method or expanded column addition (written method) | Round PartitionMental additionExchange Hundreds, tens and onesDigitSymmetricalPatternRelationship | Read 2 and 3 digit numbers.Count to 1000Use expanded written method. Use mathematical language to describe patterns.Discuss pros and cons of different methods. |
| 18 | **MEA** Measurement**Time**Week 18 focuses on time-telling on digital and analogue clocks, and the calculation of time intervals; these are used in solving word problems. | Tell the time to the nearest minute on analogue and digital clocks (minutes past and minutes to); time events in minutes and seconds; find a time after a given interval (not crossing the hour); calculate time intervals; solve word problems involving time | O'clockPast ToDigitalAnalogueHourMinuteClock/ handsMinutesSecondsFaster/slowerStart/finish | Read digital and analogue clocks.Count in 5s.Recognise and interpret vocabulary linked to problem solving. |
| 19 | **NPV** Number and place value; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra**Place value; subtraction**Week 19 focuses on using number lines to facilitate an understanding of place value in 3-digit numbers, and as an efficient method of performing subtraction involving 3-digit numbers. | Order 3-digit numbers and find numbers between; solve subtractions of 3-digit - 3-digit numbers using counting up (Frog); use counting up and counting back as strategies to perform mental subtractions; choose to solve a given subtraction by counting up or counting back | In-betweenDifferenceCount on Count backPatternMethod | Count to 1000Recognise the value of digits in 3 digit numbersDiscuss the pros and cons of counting up or back. |
| 20 | **MMD** Mental multiplication and division; **WMD** Written multiplication and division; **PRA** Problem solving, reasoning and algebra**Multiplication and division**Week 20 focuses on developing multiplication strategies using doubling and halving and the grid method; division is related to multiplication and this relationship is used to solve missing number problems. | Double and halve numbers up to 100 by partitioning; solve word problems involving doubling and halving; multiply numbers between 10 and 25 by 1-digit numbers using the grid method; divide multiples of 10 by 1-digit numbers using known tables facts; see the relation between multiplication and division | MultiplyMore than Less thanDouble and halfPoundsPenceInverse | Partition 3 digit numbersInterpret and use the language of problem solvingUse an efficient concrete and pictorial grid method to multiplyUse an efficient method for division including concrete and pictorial  |

## Year 3, Summer Term 1

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| Week  | Strand and progression focus | KPIs | Key Vocabulary | Core Skills |
| 21 | **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra; **FRP** Fractions, ratio and proportion**Addition and subtraction**Week 21 focuses on securing understanding of addition and subtraction and rehearsing sound mental strategies, extending to adding and subtracting fractions. | Add 3-digit and 1-digit numbers mentally, using number facts; subtract 1-digit numbers from 3-digit numbers mentally using number facts; add and subtract multiples of 10 by counting on and back in 10s and using number facts to cross 100s; compare and order fractions with the same denominator; begin to recognise equivalences of 1/2; add and subtract fractions with the same denominator | Number factNumber bondCompareFraction NumeratorDenominatorHalfQuarterFifthSixth | Count forwards and backwards to and from 1000.Recall number facts. Understand place value to add and subtract 10s.Know a fraction is part of a whole. Use a fraction wall. |
| 22 | **MMD** Mental multiplication and division; **PRA** Problem solving, reasoning and algebra; **WMD** Written multiplication and division**Multiplication and division**Weeks 22 and 23 focus on developing understanding and skills in multiplication and division, including using tables facts to solve scaling problems, multiplications using the grid method, and divisions using chunking. | Use function machines to multiply by 2, 3, 4, 5 and 8 and understand the inverse; use scaling to multiply heights and weights by 2, 4, 8, 5 and 10; use known facts to multiply multiples of 10 by 2, 3, 4 and 5; multiply numbers between 10 and 30 by 3, 4 and 5 using the grid method; multiply 2-digit numbers by 3, 4, 5 and 8 using the grid method | FunctionInput OutputInverseMultipleDoubleTens and Ones MultiplyGrid MethodCommutativePartition | Use a function machine.Know 2,3,4,5 and 8 times tables.Discuss and explain inverse.Use place value to multiply by 10.Use grid method. |
| 23 | **MMD** Mental multiplication and division; **WMD** Written multiplication and division**Multiplication and division**Weeks 22 and 23 focus on developing understanding and skills in multiplication and division, including using tables facts to solve scaling problems, multiplications using the grid method, and divisions using chunking. | Divide without remainders, just beyond the 12th multiple; division using chunking, with remainders; use the grid method to multiply 2-digit numbers by 3, 4 ,5 and 8; begin to estimate products | InverseRemainder CommutativeProductRounding EstimateApproximate  | Divide using chunking.Know multiplication facts and where one is left over.Use grid methodKnow 2,3,4,5 and 8 times tables. |
| 24 | **STA** Statistics; **PRA** Problem solving, reasoning and algebra; **MEA** Measurement**Statistics and data; weight**Week 24 focuses on drawing and interpreting pictograms and bar graphs with different scales, and on using these to record and analyse data in the context of measuring weights. | Draw and interpret bar charts and pictograms where one square/symbol represents two units; compare and measure weights in multiples of 100g; know how many grams are in a kilogram; estimate and weigh objects to the nearest 100g; draw and interpret bar charts where one square represents one hundred units | PictogramTotalWeightMassBalanceChartScale | Hold and use a ruler correctly.Use and interpret symbols to represent different amounts.Recall facts related to weight. |
| 25 | **MAS** Mental addition and subtraction; **WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and algebra**Addition and subtraction**Weeks 25, 26 and 27 focus on mental and written addition and subtraction, including mental strategies, column addition, subtracting by counting up, and choosing appropriate methods to solve problems. | Add 3-digit and 2-digit numbers using mental strategies; add two 3-digit numbers using mental strategies or by using column addition; use reasoning, trial and improvement to solve problems involving more complex addition | Partition EstimateTens and onesCompact column additionExpanded column additionEstimateRound | Read and write 2 and 3 digit numbers. Use column addition with 3 digits.Use language of problem solving. Trial and error.Select the most appropriate method to solve a problem. |

## Year 3, Summer Term 2

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| Week | Strand and progression focus | KPIs | Key Vocabulary | Core Skills  |
| 26 | **WAS** Written addition and subtraction; **MAS** Mental addition and subtraction**Addition and subtraction**Weeks 25, 26 and 27 focus on mental and written addition and subtraction, including mental strategies, column addition, subtracting by counting up, and choosing appropriate methods to solve problems. | Use column addition to add three 2- and 3-digit numbers together and four 2- and 3-digit numbers together; subtract 3-digit numbers using counting up; solve word problems choosing an appropriate method | Partitioning EstimateExpanded Number bondsNumber factsMultiple AltogetherTotalcalculation | Read and write 2 and 3 digit numbers.Use column additionSubtract by counting up.Count to 1000Select the most appropriate method to solve a problem.Interpret and use vocabulary linked to problem solving. |
| 27 | **WAS** Written addition and subtraction; **MEA** Measurement; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra**Addition and subtraction**Weeks 25, 26 and 27 focus on mental and written addition and subtraction, including mental strategies, column addition, subtracting by counting up, and choosing appropriate methods to solve problems. | Add 3-digit numbers using column addition; solve problems involving measures; solve subtractions of 3-digit numbers using counting up on a line and work systematically to find possibilities; choose an appropriate strategy to solve addition or subtraction | PerimeterWidthLength DifferenceEstimateRounding MultipleAdjust  | Read and write 3 digit numbersUse and understand language linked to measures.Persevere to find all possibilities. Trial and error. Select appropriate methods.  |
| 28 | **GPS** Geometry: properties of shapes; **MEA** Measurement**2D shapes; time**Week 28 focuses on developing understanding and vocabulary of shape and angle, including measuring perimeters; and on telling the time 5, 10, 20 minutes later using am/pm and 24-hour clock. | Identify, name and draw horizontal, vertical, perpendicular, parallel and diagonal lines, angles and symmetry in 2D shapes; measure the perimeter of 2D shapes by counting and measuring with a ruler; tell the time on analogue and digital clocks to the minute, begin to tell the time 5, 10, 20 minutes later, recognise am and pm and 24-hour clock times | HorizontalVerticalPerpendicularParallelAnalogueDigitalConvertHalf past Quarter pastQuarter to | Hold and use a ruler correctly. Name 2d shapes and use their properties to discuss.Read an analogue and digital clock.Use a 24 hour clockUnderstand and use time related language. |
| 29  | **WMD** Written multiplication and division; **PRA** Problem solving, reasoning and algebra; **MMD** Mental multiplication and division; **FRP** Fractions, ratio and proportion; **DPE** Decimals, percentages and their equivalence to fractions**Multiplication and division; fractions**Week 29 focuses on consolidating written multiplication and division strategies, securing understanding of the relation between division and fractions, and moving to finding tenths of amounts. | Use the grid method to multiply 2-digit numbers by 3, 4, 5, 6 and 8; estimate products; divide using chunking, with and without remainders; decide whether to use multiplication or division to solve word problems; recognise tenths and equivalent fractions; find one-tenth and several tenths of multiples of 10 and begin to find one-tenth of single-digit numbers | ThousandsHundredsCalculateProductIntegerExchange | Use grid method.Know 3,4,5,6 and 8 times tables.Divide by chunking.Make decisions about which methods to use.Use a fraction wall. Understand a fraction as part of a whole. Add fractions to make a whole. |
| 30 | **MAS** Mental addition and subtraction; **WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and algebra; **WMD** Written multiplication and division; **MMD** Mental multiplication and division**Revision**Week 30 focuses on rehearsing and consolidating mental and written calculation skills in addition, subtraction, multiplication and division. | Revise column addition for adding three 3-digit numbers; revise mental strategies for addition; subtract 3-digit numbers using written and mental methods; find change using counting up; check subtraction using addition; multiply numbers between 10 and 40 by 1-digit numbers using grid method; solve division problems just beyond the known tables facts | ThousandsHundredsCalculateProductIntegerExchangeTotal | Read and write 3 digit numbers.Use written and mental methods as appropriate.Relate money to place value.Use grid method to multiply.Use multiplication knowledge.Apply multiplication knowledge to inverse. |